

REMARKS

Amendments to the claims

In an earnest effort to advance prosecution and without prejudice, independent claim 1 has been amended to recite preferred embodiments of applicants' invention that are more clearly differentiated from the prior art.

Specifically, claim 1 now incorporates the following limitations: the limitation on the R group (8) of component i) as recited in claim 4; the limitation on block copolymer concentration as recited on page 9, line 2.; the limitation that the composition will form a micro-emulsion with sebum as stated on page 2, lines 21-23; and the limitation that components i) and ii) can form a micro-emulsion with equal weights of water and triolein at a minimum concentration of component i) of 15% as discussed and demonstrated in Examples 3 and 5 (specifically tables 4 and 5, pages 27 and 28).

Claims 4 and 11 have been cancelled and claims 18-20 stand withdrawn following an election in response to a restriction requirement.

Claim Rejections – 35 USC §103

Claims 1-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of JP 1993-261825 ('825) and Science Article "On the Origins of Morphological Complexity in Block Copolymer Surfactants", Vol. 300, pp 460462 (8/18/2003). Applicants respectfully believe that the reference number JP 1993-

261825 is incorrect. Applicants have used the publication number 5-198129 (1993) which appears on the front page of the original Japanese reference contained in the file wrapper image. This reference will be designated JP '129. Applicants traverse the rejection.

JP '129 was relied upon by the Examiner for its disclosure of component i) ("triblock surfactant"). JP'129 discloses a gel composition comprising a polyoxyethylene-polyoxypropylene ether of the formula: $R-O-(PO)_m-(EO)_n-H$ ("triblock surfactant") wherein R is a linear or branched chain having 10-30 carbon atoms; m and n are integers having values of 10 and 1-50 respectively.

JP '129 is silent with respect to any properties or benefits of triblock surfactants having $R < 10$ in general, and in particular any peculiar benefits of triblock surfactants having $R = 8$ in the micro-emulsification of sebum. The specific R groups mentioned in JP'129 and used in the examples are cetyl ($R = 16$), and decyltetradecyl ($R = 24$). (Page 6, paragraph [0008] of translation).

JP '129 is silent concerning the requirement that the composition can form a micro-emulsion with sebum and that the triblock surfactant can form a micro-emulsion with equal weights of water and triolein at a minimum surfactant concentration of 15%. All the examples in JP'129 contain 45-55% of glycerol triisooctanoate (the tri ester of 2,2,4-trimethylpentanoic acid) as by far the predominant "oil" and no compositions are in fact disclosed which have equal weights of water and oil.

JP '129 is silent with respect to inclusion of poly(Butadiene-b-Ethylene Oxide) block copolymers in the gel composition.

The Science article was relied upon by the Examiner for its disclosure of component ii) (poly(Butadiene-b-Ethylene Oxide)). The Science article is directed to a study of the morphology of poly(Butadiene-b-Ethylene Oxide) block polymers in aqueous solutions at concentrations of 1%, 22% and 26% by weight (page 461 columns 1 and 3).

The Science article is silent about the properties of poly(Butadiene-b-Ethylene Oxide) at concentrations less than 1%.

The Science article is silent with respect to the micro-emulsification of sebum or triglycerides and any surfactant structural properties that would maximize micro-emulsification.

The Science article is silent about any benefits of the combination of poly(Butadiene-b-Ethylene Oxide) with nonionic surfactants in general, and in particular, is silent about any peculiar benefits of mixtures of poly(Butadiene-b-Ethylene Oxide) with triblock surfactants in the micro-emulsification of sebum.

In contrast to JP'129 and the Science article, the current claims are directed to skin care compositions that form micro-emulsions with sebum. Applicants discovered specific surfactant-polymer combinations that efficiently micro-emulsify sebum (page 2, lines 21-25).

Applicants' claims differ from the combined disclosures of JP'129 and the Science article in at least the following key elements:

a) The alkyl chainlength of the triblock: claim 1 requires $R=8$ while the JP '129 requires $R=10-30$. Applicants respectfully submit that the optimal surfactant recited in claim 10 is even more remote from the teachings of JP '129.

b) The concentration of the poly(Butadiene-b-Ethylene Oxide) block polymer: claim 1 requires 0.1 to 0.6 wt% whereas the minimum amount disclosed in the Science Article is 1 wt%. Applicants' have demonstrated in Example 2 that synergy in micro-emulsification of triolein surprisingly only occurs over a narrow concentration ratio between the claimed triblock surfactant and the poly(Butadiene-b-Ethylene Oxide) block polymer. The optimum concentration of poly(Butadiene-b-Ethylene Oxide) block polymer required in the composition to realize maximum synergy (about 0.25 wt% as recited in claim 12) is far below the minimum amount disclosed in the Science article.

Furthermore, applicants' have also shown in Example 2 that a different nonionic block copolymer $[(EO)_{46}-(PO)_{16}Y-(EO)_{46}]$ does not provide any synergy with the triblock surfactant in micro-emulsification.

c) The requirement that the composition forms a micro-emulsion with sebum: both JP'129 and the Science article are silent about sebum micro-emulsions.

d) The requirement that the combination of the triblock (components i) and the poly(Butadiene-b-Ethylene Oxide) (component ii)) are selected such that the combination can form a micro-emulsion with equal weights of water and trioleum at a minimum

concentration of triblock of 15%: JP'129 and the Science article are silent about the microemulsification of triolein and about any properties that would have lead to high micro-emulsification efficiency (e.g., ability to micro-emulsify equal weights of water and oil at minimum concentration).

Applicants submit that absent a disclosure of elements a) – d) of applicants claims discussed above, the combination of JP'129 and the Science article does not render the present claims 1-12 *prima facie* obvious.

In view of the above amendments and remarks, applicants respectfully request that the 103(a) rejection of claims 1-12 over JP 5-198129 and Science Article "On the Origins of Morphological Complexity in Block Copolymer Surfactants", Vol. 300, pp 460462 (8/18/2003) be reconsidered and withdrawn.

Claims 13-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of JP 5-198129 and Science Article "On the Origins of Morphological Complexity in Block Copolymer Surfactants", Vol. 300, pp 460462 (8/18/2003) as applied to claims 1-12 above and further in view of US patent 5,540,853 ('853). Applicants traverse this rejection.

The non-obviousness of claims 1-12 over JP'129 and the Science article has already been discussed.

'853 was relied upon by the Examiner for its disclosure of astringent salts in topical composition and its suggestion of adding nonionic surfactants. '853 is directed to personal cleansing and/or cosmetic compositions containing enduring perfumes which

are less likely to irritate skin and which provide efficient and long lasting perfume benefits even after rinsing. Astringents are mentioned as optional antiperspirant ingredients.

'853 is silent about the specific type of nonionic surfactant, $R-O-(PO)_x-(EO)_y-H$ triblock surfactants recited in applicants claims.

'853 is silent about poly(Butadiene-b-Ethylene Oxide) block polymers (the word "butadiene" was not found in a word search of the document).

'853 is silent regarding micro-emulsions in general and the micro-emulsification of ether sebum or triolein in particular (the words, "sebum", "triolein", "microemulsion" or "micro-emulsion" were not found in a word search of the document)


Thus, the combination JP'129, the Science article and '853 does not disclose elements a) - d) discussed above that differentiate claims 1-12 from the combination of JP'129 and the Science article.

Applicants submit that absent a disclosure of these elements, the combination of JP'129, the Science article and '853 does not render present claims 13-17 *prima facie* obvious because these claims derive from claim 1.

In light of the above amendments and remarks applicants respectfully request that the 103(a) rejection of claims 13-17 over the combination of JP 5-198129, Science Article "On the Origins of Morphological Complexity in Block Copolymer Surfactants", Vol. 300, pp 460462 (8/18/2003) and US patent 5,540,853 be reconsidered and withdrawn and that the application be allowed to issue.

If a telephone conversation would be of assistance in advancing prosecution of the subject application, applicants' undersigned agent invites the Examiner to telephone him at the number provided.

Respectfully submitted,

A handwritten signature in cursive script, reading "Michael P. Aronson", written over a horizontal line.

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